



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,194	02/26/2002	Darrin H. Mackenzie	9858-000153	5671

7590 07/13/2004
Kelly K. Burris, Esq.
Harness, Dickey & Pierce, P.L.C.
Suite 400
7700 Bonhomme Avenue
Saint Louis, MO 63105

EXAMINER

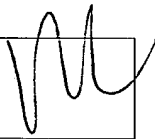
PASCHALL, MARK H

ART UNIT	PAPER NUMBER
----------	--------------

3742

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/083,194	Applicant(s) MACKENZIE ET AL. 	
	Examiner Mark H Paschall	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-108 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-28, 45-51, 66-68, 97 and 98 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 14, 29, 35-37, 43, 52-54, 69, 70, 72, 74-76, 83-89, 99, 101, 103, 105 and 107 is/are rejected.
- 7) ☒ Claim(s) 3-13, 30-34, 38-42, 55-65, 71, 73, 77-82, 96, 100, 102, 104 and 106 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11-20-03 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11-20-03</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,14,29,35-37,43,52-54,69,70,72,74-76,83-89,99,101,103,105,107,107 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Gratziani et al. note that Gratziani et al clearly teaches quick connect/disconnect means 10 situated between torch head 24 and gas and power supplies 22 and 26 in figure 1. The quick coupling includes pins and sockets as claimed. Note that the gas supply 18,34 directs the gas flow and is considered a gas control means as per claim 15, barring further description of the same in the claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 90-93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gratziana et al. The claimed invention is taught in Gratziana et al except for showing use of the power leads to carry a plurality of signal and power pins. Use of a plurality of signal wires and pins through the torch head to the torch supply units is conventional in the art and one of ordinary skill in plasma torches would find it obvious to use the power lead in Gratziana et al to carry a multiplicity of signals, such choice dependent on the complexity of the torch used and the level of control desired.

Claim Rejections - 35 USC § 103

Claims 94-95 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gratziana et al in view of Kester et al.

Gratziana et al teaches the claimed subject matter except for showing use of a torch handle and such handle comprising two halves fastened together. This design is conventional as evidenced by Kester et al, and in view of this teaching it would have been obvious to modify the Gratziana et al torch for a more portable use with such a handle if desired, such choice being designated by the type of plasma processing desired.

Allowable Subject Matter

Claims 15-28, 45-51, 66-68,97-98 are allowed. These claims are allowable for showing features such as the resilient fingers in the pin socket connection, use of locking rings in the socket fitting and second quick connect between the head and gas control device, the prior art of record not teaching these features.

13

Claims 3-~~17~~,30-34, 38-42, 55-65, 71,73,77-82,96, 100,102,104,106 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Features described in these claims such as resilient fingers in the pin and socket means and threaded means on the quick connect working in connection with the pin and socket means, are not taught in the prior art of record.


Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Roberts et al and Daniel are cited for disclosing pertinent plasma torch devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark H Paschall whose telephone number is 703 308-1642. The examiner can normally be reached on 7am - 3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on 703 308-2634. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Mark H Paschall
Primary Examiner
Art Unit 3742

mp